Remarks

The Office Action of April 12, 2002 has been received and considered. In the Office Action, claims 13-18 were withdrawn from consideration. Claims 1-12 were rejected under 35 U.S.C. §102(b) based on U.S. Patent No. 5,512,791 to Cho or 35 U.S.C. §103(a) based on Cho in view of U.S. Patent No. 3,265,911 to Madsen.

Claims 11 and 13-18 have been cancelled. Claims 19-23 have been added. Claims 1, 3, 4, 5 and 8 have been amended. Claims 1-10, 12 and 19-23 are pending. Reconsideration of the application is requested.

Claim 3 has not been amended to overcome any rejection or objection. Instead, it was amended to indicate that the adjusted position of the stator recited in the claim is relative to the phase modules. Similar amendments were also made to claims 1, 4 and 8. Claim 8 has been further amended to include recitations from original claim 11.

The Information Disclosure Statements (IDS's) filed on June 21, 2001 and January 15, 2002 have not been considered. In the Office Action, it is indicated that the IDS's were not considered because they each cite too many publications. In support of this position, two cases that deal with exorbitant numbers ("mountains") of references have been cited in the Office Action. However, these cases are not applicable because 44 U.S. patents and 7 publications in one IDS (6/21/01) and three foreign publications in the other (1/15/02) fail to rise to the level of a "mountain" of references. An IDS that cites only fifty-one total publications cannot fairly be considered an attempt to inundate an examiner. Moreover, an IDS that cites only three publications is also clearly not overly voluminous. Instead, the filed IDS's are merely the result of the applicants' compliance with their duty of disclosure under 37 CFR § 1.56.

As clearly set forth in M.P.E.P. §609, when an IDS that complies with the requirements of 37 CFR §§1.56, 1.97 and 1.98 has been submitted, the examiner **must consider** the cited publications. The IDS's filed in the instant application clearly comply with the requirements of 37 CFR §§1.56, 1.97 and 1.98. Hence, the examiner is obligated to consider these references - **they must be considered per M.P.E.P. §609(c)(2)**. It is requested that the IDS's be considered and each listed patent and other publication be initialed. If these IDS's are not considered, it is requested that authority supporting the position that an IDS that cites 51 publications and an IDS that cites 3 publications are individually so voluminous that they rise to the level of a "mountain" of publications.

Claim 5 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 5 has been amended to provide clear antecedent basis. Withdrawal of the rejection is requested.

Claims 1, 4-9, 11 and 12 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,512,791 to Cho, which teaches an elevator having a linear motor. The elevator includes an elongated stator, a rotor that surrounds the stator and four stator positioning mechanisms. As shown in the figures, the rotor and stator are circular.

The rotor includes a closed, cylindrical housing that allegedly contains phase modules that are located at diametrically opposed positions around the stator. Each stator positioning mechanism includes a rolling wheel that is secured to a pivoting arm. Each rolling wheel engages the stator when its pivoting arm is forced in the direction of the stator. The pivoting arms are each secured to an upper surface of a support ring located above an upper surface of the rotor housing by a bracket. The stator positioning mechanisms are positioned and secured in an area outside of the rotor/rotor housing where it is asserted that phase assemblies are located. As a result, the stator positioning mechanisms are separate from the rotor and the rotor housing.

Therefore, the stator positioning mechanisms are not integral or associated with the phase modules asserted to be within the rotor.

Claim 1 recites a variable reluctance motor with first and second opposing phase modules, a stator extending between the phase modules and at least one stator positioning system. The positioning system is integrally formed with at least one of the phase modules. The shaft carries a positioning member that contacts and positions the stator relative to the phase modules. This is not disclosed in the patent to Cho.

As discussed above, the patent to Cho discloses that the phase modules are located within a first closed member - the rotor housing; the stator positioning mechanisms are supported on a separate plate positioned above the rotor housing. The stator positioning mechanisms are not associated with any phase module. Instead, they are independent of the phase modules. For example, the number or position of the stator positioning mechanisms does not depend on the number of phase modules within the rotor housing. Additionally, each stator positioning member is not secured to the phase modules as a single unit. Instead, the stator positioning mechanisms are separate from the phase modules. Therefore, the stator positioning mechanisms of Cho are not integral with the phase modules. Hence, Cho cannot anticipate claim 1. Withdrawal of the rejection is requested.

Claim 8 now recites that the positioning system includes a flexible shaft for carrying a stator engaging member. Such a shaft is not disclosed in the patent to Cho. The shafts that carry the stator engaging rolling wheels disclosed in the Cho patent are not flexible. Instead these shafts are rigid members pivotally secured to respective brackets. These shafts must be rigid in order for the positioning mechanisms to work properly. If the shafts in the Cho patents were not rigid, the stator engaging wheels would undesirably deflect away from the stator and the purpose

of the shaft and the related parts of the positioning mechanism in Cho would be defeated. Hence, Cho does not disclose the flexible shaft as recited in claim 8. Withdrawal of the rejection is requested.

Claim 19 is also allowable over Cho. The rolling wheels that contact the stator of Cho are not secured to a shaft that is integral with one of the phase modules. Instead, as clearly seen in the figures of the Cho patent, the rolling wheels and their related shafts are separated from all of the phase modules within the rotor housing. As a result, the Cho patent does not teach the recited positioning system for contacting the stator wherein the shaft extends from one of the phase modules as recited in claim 19.

Claims 2, 3 and 10 were rejected as being unpatentable under 35 U.S.C. §103(a) based on Cho in view of U.S. Patent No. 3,265,911 to Madsen.

Madsen teaches a conventional linear motor having a plurality of members positioned on opposite sides of a stator. However, Madsen does not disclose a stator positioning system. As a result, Madsen cannot disclose what Cho lacks with respect to claims 1, 8 and 19. Madsen would not have motivated one of ordinary skill to modify Cho in order to arrive at the variable reluctance motor recited in claims 1 and 8 because even if these disclosures were combined, they would fail to arrive at the recited motors. Withdrawal of the rejection is requested.

For all of the above-discussed reasons, Applicants respectfully submit that claims 1-10, 12 and 19-23 are allowable and that the application is now in condition for allowance. A notice to this effect is earnestly solicited.

If any questions or issues remain, the resolution of which the Examiner feels would be advanced by a conference with Applicants' attorney, the Examiner is invited to contact Applicants' attorney at the number noted below.

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1. (Amended) A variable reluctance motor comprising:

at least one first phase module and at least one corresponding second phase module, said first phase module positioned opposite and spaced from said corresponding second phase module;

a stator extending between said first and second phase modules and

at least one stator positioning system integral with one of said phase modules and configured to adjust the position of [said stator relative to] said [first and second] one of said phase modules relative to said stator such that the level of noise produced by said motor is adjusted when said one of said phase modules is moved relative to said stator.

3. (Amended) The variable reluctance motor of claim 1 wherein said stator is spaced from said first and second phase modules by corresponding air gaps, said air gaps changing size as the position of the first and second phase modules [the stator] is adjusted relative to said stator, thereby adjusting the level of noise produced by said motor.

4. (Amended) The variable reluctance motor of claim 1 wherein said positioning system comprises at least one shaft that extends from the at least one first phase module, and a second shaft extending from the at least one second phase module, each said shaft carrying [and] at least one positioning member configured to contact said stator such that the position of said [stator] at least one first phase module and said at least one second phase module is adjusted relative to said stator [phase modules is adjusted].

5. (Amended) The variable reluctance motor of claim 4 wherein said positioning [phase modules] members comprise stator guide bearings, said stator guide bearings being rotatable relative to said stator.

8. (Amended) A variable reluctance motor comprising:

at least one phase unit comprising first and second phase modules, said first and second phase modules positioned opposite and spaced apart from each other;

a stator extending between said first and second phase modules such that a gap is formed between said stator and each opposing phase modules; and

at least one positioning system configured to contact and move at least one of the phase modules relative to the stator to adjust the size of said gaps thereby adjusting the level of noise produced by the motor, said at least one positioning system comprising flexible bearing shafts each supporting at least one stator engaging member.